

EXPRESS MAIL NO. EV348170276US

PTO/SB/01A (08-03).

Approved for use through 10/31/2002. OMB 0651-0032.

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**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION  
USING AN APPLICATION DATA SHEET (37 CFR 1.76)****Title of Invention** POWER CONVERTER EMPLOYING A PLANAR TRANSFORMER

As the below named inventor(s), I/we declare that:

This declaration is directed to:

- ☐ The attached application, or  
☒ Application No. 10/688,834, filed on October 16, 2003,  
☐ as amended on \_\_\_\_\_ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;

I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application.

All statements made herein of my/our own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

**FULL NAME OF INVENTOR(S)**Inventor one: Lizhi Zhu Citizen of: People's Republic of ChinaSignature: *Lizhi Zhu* Date: 12/18/03Inventor two: John M. Van Dyke Citizen of: United StatesSignature: *John M Van Dyke* Date: 12/18/03Inventor three: Richard J. Hampo Citizen of: United StatesSignature: *MM* Date: 12/18/03

Inventor four: \_\_\_\_\_ Citizen of: \_\_\_\_\_

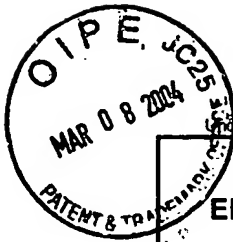
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Additional inventors or a legal representative are being named on \_\_\_\_\_ additional form(s) attached hereto.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: P.O. Box 1450, Alexandria, VA 22313-1450.

Docket No. 130209.509

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PTO/SB/81 (06-03)

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**ELECTION AND POWER OF  
ATTORNEY and  
CORRESPONDENCE ADDRESS  
INDICATION FORM**

Application Number	10/688,834
Filing Date	October 16, 2003
First Named Inventor	Lizhi Zhu
Title	POWER CONVERTER EMPLOYING A PLANAR TRANSFORMER
Art Unit	
Examiner Name	
Attorney Docket Number	130209.509

I hereby appoint:

☒ Practitioners at Seed IP Law Group PLLC, Customer Number: **00500**

OR

☐ Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

☒ The above-mentioned Customer Number.

OR

☐ The address associated with Customer Number:

OR

<input type="checkbox"/> Firm or Individual Name					
Address					
City		State		ZIP	
Country					
Telephone		Fax			

I am the:

☐ Applicant/Inventor.☒ Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

☒ As assignee of record of the entire interest I/we hereby elect, under 37 C.F.R. § 3.71, to prosecute the application to the exclusion of the inventor(s).**SIGNATURE of Applicant or Assignee of Record**

Name	Noordin S.K. Nanji – Corporate Secretary
Signature	
Date	JANUARY 15, 2004
Name	Fred Flett – Vice-President, Product Development
Signature	
Date	01-12-04

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☒ \*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Lizhi Zhu et al.Application No./Patent No.: 10/688,834 Filed/Issue Date: October 16, 2003Entitled: POWER CONVERTER EMPLOYING A PLANAR TRANSFORMERBallard Power Systems Corporation

(Name of Assignee)

a

corporation(Type of Assignee, e.g., corporation, partnership,  
university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of an undivided part interest

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above.  
The assignment was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the  
current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached☐ Additional documents in the chain of title are listed on a supplemental sheet.☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be  
submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records  
of the USPTO. See MPEP 302.8]

The undersigned (whose titles are supplied below) are authorized to act on behalf of the assignee.

JANUARY 15, 2004

Date

Noordin S.K. Nanji

Typed or printed name

Signature

Corporate Secretary

Title

01-12-04

Date

Fred Flett

Typed or printed name

Signature

Vice-President, Product Development

Title

## ASSIGNMENT

WHEREAS, we, Lizhi Zhu, John M. Van Dyke and Richard J. Hampo (hereinafter referred to as ASSIGNORS), having mailing addresses of 48580 Greenwich Circle, Canton, Michigan 48188; 45971 Amesbury Drive, Plymouth, Michigan 48170; and 13745 Embers Court, Plymouth, Michigan 48170, respectively, are the joint inventors of an invention entitled "POWER CONVERTER EMPLOYING A PLANAR TRANSFORMER," as described and claimed in the specification for which an application for United States letters patent was filed on October 16, 2003 and assigned Application No. 10/688,834.

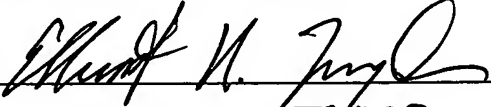
WHEREAS, Ballard Power Systems Corporation (hereinafter referred to as ASSIGNEE), a corporation of the State of Delaware having a place of business at 15001 Commerce Drive North, Dearborn, Michigan 48120, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEE the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United

States and foreign letters patent on said invention, for litigation regarding letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

12/18/03  
Date  
Lizhi Zhu  
Lizhi Zhu  
State of MICHIGAN )  
County of WAYNE ) ss.

I certify that I know or have satisfactory evidence that Lizhi Zhu is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated DECEMBER 18, 2003  
Signature of Notary Public   
Printed Name ELBERT N. TAYLOR  
My appointment expires JULY 09, 2004

ELBERT N. TAYLOR  
NOTARY PUBLIC WAYNE CO., MI  
MY COMMISSION EXPIRES Jul 9, 2004

12/10/03  
Date  
John M. Van Dyke  
John M. Van Dyke  
State of MICHIGAN)  
County of WAYNE)  
ss.

I certify that I know or have satisfactory evidence that John M. Van Dyke is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated DECEMBER 18, 2003  
Signature of Notary Public Elbert N. Taylor  
Printed Name ELBERT N. TAYLOR  
My appointment expires JULY 09, 2004

ELBERT N. TAYLOR  
NOTARY PUBLIC WAYNE CO., MI  
MY COMMISSION EXPIRES JUL 9, 2004

Date 12/18/03

M J Hampo  
Richard J. Hampo

State of MICHIGAN

County of WAYNE

ss.

I certify that I know or have satisfactory evidence that Richard J. Hampo is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated DECEMBER 18, 2003

Signature of  
Notary Public Elbert N. Taylor

Printed Name ELBERT N. TAYLOR

My appointment expires JULY 09, 2004

ELBERT N. TAYLOR  
NOTARY PUBLIC WAYNE CO., MI  
MY COMMISSION EXPIRES JUL 9, 2004